Quarterly Review As of 06/30/2021 MassMutual Mid Cap Growth Fund*

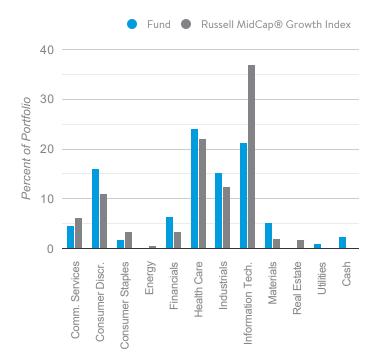


T. Rowe Price & Associates, Inc. | Frontier Capital Management Company, LLC

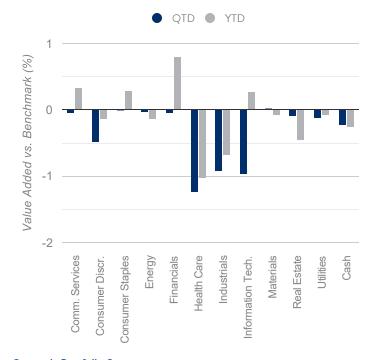
I SHARE CLASS • TICKER: MEFZX

Fund Objective: This Fund seeks growth of capital over the long-term.

Sector Weightings: Defines what % of each sector this fund holds compared to its benchmark listed here.



Portfolio Attribution: Describes how fund manager sector and stock weighting decisions affected returns.



Sector Attribution Details:

Sector	Fund Weight	QTD	YTD
Communication Services	4.61	-0.05	0.33
Consumer Discretionary	16.15	-0.49	-0.15
Consumer Staples	1.76	-0.01	0.29
Energy	0.00	-0.04	-0.14
Financials	6.38	-0.06	0.80
Health Care	24.14	-1.24	-1.04
Industrials	15.27	-0.93	-0.69
Information Technology	21.28	-0.98	0.27
Materials	5.17	0.02	-0.09
Real Estate	0.00	-0.10	-0.46
Utilities	1.05	-0.13	-0.08
Cash	2.34	-0.24	-0.27

Quarterly Portfolio Commentary:



Jason Marino, CFA, CAIA Investment Director Investment Experience: 19 Years

HIGHLIGHTS

- \bullet The Russell Midcap Growth® Index was the second best performing domestic index in the quarter.
- Ten of 11 sectors, representing nearly 98% of the index, posted gains in the period.
- Stock selection was the main contributor to the Fund's relative underperformance.
- Sector allocation was also a negative relative contributor due an overweight allocation to the materials sector and an underweight allocation to the information technology sector.

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Russell MidCap® Growth Index measures the performance of the mid-cap growth segment of the U.S. equity universe. It includes Russell Midcap Index companies with higher price-to-book ratios and higher forecasted growth values. It is market-capitalization weighted. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

^{*}Prior to 05/01/2021, the fund name was MassMutual Select Mid Cap Growth Fund.

MassMutual Mid Cap Growth Fund*

Quarterly Portfolio Commentary:

The Russell Midcap Growth® Index (the Index) was the second best performing domestic index in the quarter, rebounding sharply from its decline in first quarter. Ten of the 11 sectors in the index posted gains and six sectors outperformed the broad index in the quarter. The two best performing sectors – energy and real estate – represented a combined average weight of 2.3% of the index, muting their overall impact. The information technology sector, the largest by weight, outperformed the broad index. Returns in the sector were broad based as the average stock return was close to that of the sector. The sector received strong contributions from both DocuSign and CrowdStrike Holdings, as both returned more than 37% in the quarter. The health care sector, the second largest average weight in the index for the quarter, also delivered better-than-index returns. Returns were less broad based in here than in information technology. Index heavyweight Moderna, the biotechnology company which has garnered significant investor attention with its mRNA COVID-19 vaccine, was a substantial contributor. Shares of the company advanced nearly 80% in the quarter. The company had grown to be one of the largest in the index and 'graduated' out of the Russell Mid Cap Growth Index during Russell's rebalance of their indexes in late June. Russell's annual rebalance has had significant impacts on the mid cap growth index over the past few years. The removal of Moderna was a contributor to the decline in the health care representation, though the sector remains the second largest by weight. The consumer discretionary sector regained its spot as the third largest sector. The information technology weight was slightly reduced, but it remains the largest sector by weight.

The Fund underperformed the Index and ranked just outside the top half of the peer group for the quarter. The Index was particularly difficult for active managers to beat as it ranked in comfortably in the top decile of the peer group for the period. In a reversal of the first quarter where both stock selection and sector allocation were positive, both were negative in the second quarter.

Sector allocation detracted from relative performance as an overweight allocation to the materials sector had the largest negative impact. The Fund's longstanding underweight to the information technology sector also weighed on relative results. A substantial underweight to software related firms accounts for the vast majority of the technology underweight. Sector allocation is a function of both manager's bottom-up investment process and a result of where they feel the most attractively priced growth stocks reside. Stock selection was negative in most sectors. Health care was the most challenging in the quarter with two stocks in particular having a substantial impact. An underweight allocation to Moderna was particularly impactful. The company has been an all-star during COVID-19 as its mRNA vaccine was one of the first COVID-19 vaccines approved. The stock had grown to be the largest in the index and continued its upward trajectory to gain nearly 80% in the quarter. An overweight allocation to medical technology company Hologic was impactful as well. The stock was the top overall detractor to returns after company's share price declined more than 10% in the quarter. The company missed profit expectations, despite doubling revenue versus a year ago. Stock selection within the industrials sector was driven by weakness in the share price of BWX Technologies. The share price of the nuclear components and fuel supplier declined more than 11% in the quarter. Stock selection was positive within the materials sector. The Fund received strong relative contribution from containers and packaging firms Sealed Air Corp and Avery Dennison. Sealed Air Corp was particularly strong, with shares appreciating more than 29% in the quarter.

The Fund's largest underweight allocation remains to the information technology sector. This underweight is driven primarily by a significant underweight to the software industry where the managers continue to feel valuations are stretched versus growth prospects. The Fund's largest overweight allocation is to the health care sector. This overweight is not due to a shift in the portfolio, rather a reduction of the sector's weight in the index post its June rebalance.

TICKER: MEFZX • Fund Inception: 5/31/2000 Morningstar Category: Mid-Cap Growth

Average Annual Total Return

	QTD	YTD	1 Year	3 Year	5 Year	10 Year
MassMutual Mid Cap Growth I	7.10%	9.98%	40.16%	19.33%	18.34%	14.95%
Russell MidCap® Growth Index	11.07%	10.44%	43.77%	22.39%	20.52%	15.13%
Category Average Returns			48.17%	21.26%	20.18%	14.07%
Category Rank ¹			76	58	65	30
# of Funds in Category			579	546	489	379

Performance shown is for class I shares. Gross expenses = 0.71%, Net expense = 0.71%. Max Sales charge for I is 0.00%.

Performance shown is past performance. Past performance does not guarantee future results. You can lose money, including loss of principal, by investing in this fund. Investors should carefully consider investment objectives, risks, charges and expenses. This and other important information is contained in the fund prospectuses and summary prospectuses, which can be obtained from www.massmutualfunds.com and should be read carefully before investing. A list of the Fund's holdings can also be obtained from www.massmutualfunds.com. Current performance may be lower or higher than return data quoted herein. For more current information, including month-end performance, please call 1-866-444-2601. You cannot invest directly in an index.

The Fund's **Principal Risks** include - Equity Securities Risk, Small and Mid-Cap Company Risk, Foreign Investment Risk, Emerging Markets Risk, Currency Risk, Growth Company Risk, Cash Position Risk, Convertible Securities Risk, Liquidity Risk, Management Risk, Market Risk, Preferred Stock Risk, Sector Risk, Valuation Risk.

1The Morningstar percentile ranking is based on the fund's total-return percentile rank relative to all funds that have the same category for the same time period. The highest (or most favorable) percentile rank is 1%, and the lowest (or least favorable) percentile rank is 100%. Morningstar total return includes both income and capital gains or losses and is not adjusted for sales charges. ©2021 Morningstar, Inc. All Rights Reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information.

MassMutual Mid Cap Growth Fund*

Portfolio Holdings:

Quarter	to D	ate:
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Top 5 Contributors	Fund Weight		Portfolio Contribution	Top 5 Contributors	-	Return**	Portfolio Contribution
RIVIAN AUTOMOTIVE SER D CV TC6WWEPT2	0.46	90.12	0.39	RIVIAN AUTOMOTIVE SER D CV TC6WWEPT2	0.41	341.18	0.64
DocuSign Inc	0.86	38.09	0.31	Textron Inc	1.34	42.39	0.50
Textron Inc	1.50	22.66	0.30	Bruker Corp	1.22	40.54	0.43
Agilent Technologies Inc	1.78	16.43	0.28	KKR & Co Inc Ordinary Shares	1.09	47.11	0.43
Marvell Technology Inc	1.23	19.23	0.25	Agilent Technologies Inc	1.67	25.14	0.41

Top 5 Detractors			Portfolio Contribution	Top 5 Detractors	_	Return**	Portfolio Contribution
Hologic Inc	1.90		-0.22		1.97		-0.28
Array Technologies Inc Ordinary Shares	0.17	-47.69	-0.14	Array Technologies Inc Ordinary Shares	0.26	-63.84	-0.26
Dollar Tree Inc	0.69	-13.07	-0.10	Quidel Corp	0.47	-28.68	-0.20
Casey's General Stores Inc	0.91	-9.83	-0.09	Hologic Inc	2.03	-8.39	-0.19
Ball Corp	1.93	-4.22	-0.08	Paycom Software Inc	0.57		-0.14

Fund Weightings are shown as an average for the time period.

For a complete listing of fund holdings, visit massmutualfunds.com or please call 1-866-444-2601. The mention of individual stocks and other securities in this document does not constitute investment advice.



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RS-49114-05

^{**}Absolute Return is the return that an asset achieves over a certain period of time. This measure looks at the appreciation or depreciation (expressed as a percentage) that a holding achieves over a given period of time.

